Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (Previously Presented) A power supply device comprising:

a first voltage generator having a first coolant path allowing a coolant for cooling the first voltage generator to pass therethrough;

a second voltage generator having a second coolant path allowing the coolant for cooling the second voltage generator to pass therethrough;

a first cooling system supplying the coolant to a coolant intake side of said first coolant path;

a second cooling system supplying the coolant to a coolant intake side of said second coolant path;

a coolant discharge path connected to both of a coolant discharge side of said first coolant path and a coolant discharge side of said second coolant path;

a first temperature sensor attached to said first voltage generator;

a second temperature sensor attached to said first voltage generator on the coolant discharge side of said first coolant path, relative to said first temperature sensor; and

a control circuit controlling an operation of each of said first and second cooling systems,

when said control circuit issues an operation instruction to each of said first and second cooling systems, said control circuit detecting failure in said first cooling system when a temperature difference between temperature detected by said first temperature sensor and temperature detected by said second temperature sensor is larger than a reference value.

2. (Previously Presented) The power supply device according to claim 1, further comprising a third temperature sensor attached to said second voltage generator, wherein

when said control circuit operates said second cooling system to cool said second voltage generator based on a temperature detected by said third temperature sensor, said control circuit

also operates said first cooling system in an auxiliary manner to prevent the coolant discharged from said second coolant path from flowing back to said first coolant path through said coolant discharge path even when it is determined that cooling of said first voltage generator is unnecessary based on the temperatures detected by said first and second temperature sensors.

3. (Previously Presented) The power supply device according to claim 2, wherein a flow rate of the coolant from said first cooling system when said first cooling system is operated in said auxiliary manner is set to be lower than a flow rate of the coolant when said first cooling system is operated to cool said first voltage generator.

4. (Previously Presented) The power supply device according to claim 1, wherein

said first voltage generator is a secondary battery, and

said second voltage generator is a power converter having a semiconductor power switching element embedded therein.

5. (Previously Presented) A power supply device comprising:

a first voltage generator having a first coolant path allowing a coolant for cooling the first voltage generator to pass therethrough;

a second voltage generator having a second coolant path allowing the coolant for cooling the second voltage generator to pass therethrough;

a first cooling system for supplying the coolant to a coolant intake side of said first coolant path;

a second cooling system for supplying the coolant to a coolant intake side of said second coolant path;

a coolant discharge path connected to both of a coolant discharge side of said first coolant path and a coolant discharge side of said second coolant path; and

a control circuit controlling an operation of each of said first and second cooling systems,

when said control circuit operates one cooling system of said first and second cooling systems, said control circuit also operating the other cooling system of said first and second cooling systems even when cooling of the voltage generator corresponding to said other cooling

system is unnecessary.

6. (Previously Presented) The power supply device according to claim 5, wherein said control circuit controls the operation of each of said first and second cooling systems, based on an output of each of temperature sensors provided at said first and second voltage generators.

7. (Previously Presented) The power supply device according to claim 5, wherein, when said control circuit operates said one cooling system, and when said control circuit also operates said other cooling system even when cooling of the voltage generator corresponding to said other cooling system is unnecessary, said control circuit sets a flow rate of the coolant from said one cooling system to be relatively higher than a flow rate of the coolant from said other cooling system.

8. (Previously Presented) The power supply device according to claim 5, wherein

said control circuit controls the operation of said first cooling system such that said first voltage generator is maintained to be at not more than a first reference temperature, and controls the operation of said second cooling system such that said second voltage generator is maintained to be at not more than a second reference temperature,

said first reference temperature is lower than said second reference temperature, and

when said control circuit operates said second cooling system to cool said second voltage generator, said control circuit also operates said first cooling system even when cooling of said first voltage generator is unnecessary.

9. (Currently Amended) The power supply device according to claim 8, wherein when said control circuit operates said second cooling system, ~~and when~~ said control circuit also operates said first cooling system even when cooling of said first voltage generator is unnecessary, said control circuit sets a flow rate of the coolant from said second cooling system is set to be relatively higher than a flow rate of the coolant from said first cooling system.

10. (Previously Presented) The power supply device according to claim 5, further

comprising:

a first duct provided between a discharge side of said first cooling system and said first coolant path; and

a second duct branching off from said first duct, wherein

an intake side and a discharge side of said second cooling system are coupled to said second duct and said second coolant path, respectively.

11. (Previously Presented) The power supply device according to claim 5, wherein

said control circuit controls the operation of each of said first and second cooling systems such that said first and second voltage generators are maintained to be at not more than a control target temperature and a control target temperature, respectively,

said first voltage generator is a secondary battery,

said second voltage generator is a power converter having a semiconductor power switching element embedded therein, and

said control target temperature of said power converter is higher than said control target temperature of said secondary battery.

12. (New) A method comprising:

applying a coolant to a first voltage generator, the first voltage generator having a first coolant path allowing the coolant to pass through the first voltage generator, the coolant being applied by a first cooling system to a coolant intake side of the first coolant path;

applying the coolant to a second voltage generator, the second voltage generator having a second coolant path allowing the coolant to pass through the second voltage generator, the coolant being applied by a second cooling system to a coolant intake side of the second coolant path;

discharging the coolant from the first and second coolant paths by a coolant discharge path connected to both of a coolant discharge side of said first coolant path and a coolant discharge side of said second coolant path; and

controlling an operation of each of said first and second cooling systems by a control circuit, wherein when the control circuit operates one cooling system of the first and second

cooling systems, the control circuit also operates the other cooling system of the first and second cooling systems even when cooling of the voltage generator corresponding to the other cooling system is unnecessary.

13. (New) The method according to claim 12, wherein said control circuit controls the operation of each of said first and second cooling systems, based on an output of each of temperature sensors provided at said first and second voltage generators.

14. (New) The method a according to claim 12, wherein, when said control circuit operates said one cooling system, and when said control circuit also operates said other cooling system even when cooling of the voltage generator corresponding to said other cooling system is unnecessary, said control circuit sets a flow rate of the coolant from said one cooling system to be relatively higher than a flow rate of the coolant from said other cooling system.

15. (New) The method according to claim 12, wherein

said control circuit controls the operation of said first cooling system such that said first voltage generator is maintained to be at not more than a first reference temperature, and controls the operation of said second cooling system such that said second voltage generator is maintained to be at not more than a second reference temperature,

said first reference temperature is lower than said second reference temperature, and

when said control circuit operates said second cooling system to cool said second voltage generator, said control circuit also operates said first cooling system even when cooling of said first voltage generator is unnecessary.

16. (New) The method according to claim 15, wherein when said control circuit operates said second cooling system, said control circuit also operates said first cooling system even when cooling of said first voltage generator is unnecessary, said control circuit sets a flow rate of the coolant from said second cooling system is set to be relatively higher than a flow rate of the coolant from said first cooling system.

17. (New) The method according to claim 12, further comprising:

a first duct provided between a discharge side of said first cooling system and said first coolant path; and

a second duct branching off from said first duct, wherein

an intake side and a discharge side of said second cooling system are coupled to said second duct and said second coolant path, respectively.

18. (New) The method according to claim 12, wherein

said control circuit controls the operation of each of said first and second cooling systems such that said first and second voltage generators are maintained to be at not more than a control target temperature and a control target temperature, respectively,

said first voltage generator is a secondary battery,

said second voltage generator is a power converter having a semiconductor power switching element embedded therein, and

said control target temperature of said power converter is higher than said control target temperature of said secondary battery.